

COLUMBIA RIVER REGIONAL FORUM

TECHNICAL MANAGEMENT TEAM

MEETING NOTES

July 24, 2002

**CORPS OF ENGINEERS NORTHWESTERN DIVISION OFFICES – CUSTOM HOUSE
PORTLAND, OREGON**

TMT Internet Homepage: <http://www.nwd-wc.usace.army.mil/TMT/index.html>

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FACILITATOR'S SUMMARY NOTES ON FUTURE ACTIONS

Facilitator: Donna Silverberg

The following notes are a summary of issues that are intended to point out future actions or issues that may need further discussion at upcoming meetings. These notes are not intended to be the “record” of the meeting, only a reminder for TMT members.

Bonneville Spillway Test:

Laurie Ebner, COE Portland District, reported on desired plans for spillway deflector tests at Bonneville. They would like to do the test at the end of August, but will push the date back to the first week in September if juvenile fish numbers are high. Timing (hourly and day) will be based on the migration patterns of juvenile fish and coordination with the Salmon Managers.

CRITFC expressed concerns that the test will conflict with the fall treaty fishing season, depending on river flows. Fishing usually occurs Wednesday through Saturday so spill test days may need to occur Sunday through Wednesday. BPA expressed concerns with spilling in September and would need a TDG variance to do so. They prefer August as a start date. The COE will coordinate with TMT and others to assure the least disruption to fish and the system.

Snake 40 kaf Accounting Plan:

Tony Norris reported that it is unclear how the 40 kaf in the Snake River will be accounted for if there is a medium to high water year. He said that there is a letter from NMFS that outlines this exchange more clearly, which he will present to TMT when it is available.

Emergency Action List:

Chris Ross provided a revised draft of a priority list. The 7/23 draft will be shared with the schedulers and used if an emergency occurs. Discussions on this will continue at a meeting on Tuesday July 30 at 2 pm. Those interested should meet at the security kiosk at BPA.

2003 WMP:

No further suggestions were made on the WMP. A revised draft will be completed on August 21.

Lower Granite Tri-level Temperature Collection Update:

Joe Carroll, contractor for the Walla Walla COE, did a 3-D temperature study for the lower Snake to address RPA 143 for water quality and temperature. Real-time data is not yet available. The information could be useful to aid in management of Dworshak operations, if in real-time. Cost, logistics and security are issues the COE has with this monitoring. Laura Hamilton shared the COE's latest on the database and how the information might be used in the future.

Hungry Horse Update:

Tony Norris reported that Hungry Horse is releasing 4 kcfs. He asked the Salmon Managers when they would like to ramp up to 6 kcfs and offered some suggestions. Ron Boyce presented Oregon's perspective on Hungry Horse operations. The group agreed to ramp up to 6 kcfs on August 5.

Action: Tony will run models that show elevations and volumes and send them to the Salmon Managers for their meeting on July 30. **NOTE:** Since Washington, Idaho and Montana were not represented, further discussions on Hungry Horse will be held at FPAC next week. If FPAC wants to change the operation based on their discussions on Tuesday, a TMT call will be held on Wednesday, July 31. FPAC will notify TMT as soon as possible on Tuesday if this call is necessary.

Libby Operations:

TMT agreed to a steady ramp-down at Libby. There will be a flat flow of 22 kcfs out for now, and adjustments will be made as needed.

Dworshak Operations:

Dworshak is currently operating at an outflow of 13.8 kcfs. Work at Dworshak that is scheduled for September 3 may have effects on the ability to use the water the first two weeks of September, as TMT had hoped. The group will revisit this issue on August 7. Karl Kanbergs offered TMT volume sheets to be re-activated for TMT's use at the August 7 meeting, which TMT members accepted.

Current System Conditions:

Fish migration status: Paul Wagner reported that juvenile passage appears to be on schedule. He reported high numbers of adult summer Chinook passage.

Reservoir Conditions: Grand Coulee will reach 1280' at the end of August. TMT members agreed to a gradual step-down.

Temperatures: Temperatures are heating up in the Snake River. Dave Wills will explore the possibility of lower temperature releases out of Dworshak and will contact Karl Kanbergs if lower temperatures can be released.

Water Quality: Bonneville spill regulation continues to cause problems for the COE. They are testing a number of reasons for this (e.g. temperature, wind, upriver gas). Laura Hamilton will provide daily average spill levels in addition to TDG at the August 7 meeting.

Other:

Ron Boyce requested that the Bonneville 1 smolt monitoring facility be shut down, as few fish have been seen there. Rudd Turner will find out if the facility will shut down this week so crews can move to Bonneville 2.

Kyle Martin reported that the Wy-Kan-Ush-Pum tribal festival will be held August 3-4. Information on this can be found at www.salmonpeople.org.

Next Meeting, August 7:**Agenda items:**

- Bonneville Spillway Test – check in
- Emergency Action List – check in
- Hungry Horse Operations – check in
- Scheduled Work at Dworshak
- Additional Information on Water Quality
- Dworshak Temperature Range – check in

Meeting Minutes***1. Greeting and Introductions***

The July 24 Technical Management Team meeting was chaired by Karl Kanbergs of the Corps and facilitated by Donna Silverberg. The following is a distillation, not a verbatim transcript, of items discussed at the meeting and actions taken. Anyone with questions or comments about these minutes should call Rudd Turner at 503/808-3935.

2. Bonneville Spillway Test.

Laurie Ebner from COE described the planned near-field TDG test scheduled for Bonneville during the last week in August. The purpose of the test is to determine the TDG performance of the 7-foot deflectors under a low tailwater condition, she explained. Monitoring instruments will be installed on August 24-25, which will require a three-hour curtailment of spill on both of those days. This will be followed by 36 hours of testing (12 three-hour blocks). Instruments will then be retrieved on September 3, after spill has stopped. The test will also require some disruption to the normal juvenile spill pattern at Bonneville during the 36 hours data is being collected.

If juvenile fish passage is still high, we would prefer to push the test back a week, into the first week in September, Ebner said; that was the preference expressed during the most recent FFDRWG meeting. She went through some of the issues associated with delaying the test a week. Kyle Martin noted that this is about the time the tribes will be holding their first week of fall treaty fishing, during which time they will be requesting that the three Lower Columbia pools be held at a stable, near-full condition. I just wanted to give you a heads-up that we will likely be submitting an SOR covering that operation some time in the next three weeks, Martin

said. It shouldn't be a huge problem, Scott Bettin observed; it should be possible to hold the test on Sunday-Monday-Tuesday, to avoid the weekend, during which the tribal fisheries are generally held. The bigger issue would be spill during the first week in September, Bettin added; from our standpoint, it would be better to do the test in late August, when the variances will still be in place.

The point is that you would like to coordinate the timing of the test to minimize or eliminate any detrimental biological impacts? Silverberg asked. That's correct, Ebner replied. And you'll coordinate further as the test approaches? Silverberg asked. That's correct, said Ebner.

3. Snake River 40 KAF Accounting Plan.

Tony Norris distributed a handout detailing Reclamation's flow augmentation releases in 2002 (60 KAF from the Boise system, 160 KAF from the Payette system). The handout also included a brief statement regarding the use of powerhead above Milner Dam.

At the last TMT meeting, there was also a question about our ability to account for the 40 KAF in Cascade Reservoir storage NMFS has asked Reclamation to shift to a spring release next year. In a lower water year, it would be easier to account for that water, Norris said; in a near-normal year, the picture is going to be murkier. In April, we're filling reservoirs, but there are other factors that are going to make it harder to say, here's your 40 KAF, and this is when and how it was delivered. You don't have an agreement with Idaho Power to pass that 40 KAF through? Boyce asked. That's correct, Norris replied – basically, Brownlee will fill quicker because of that 40 KAF, and will begin passing inflow sooner next year. Boyce asked what steps Reclamation is taking to ensure the delivery of the full 427 KAF in 2003; Norris replied that there isn't anything Reclamation can do, under Idaho state law – it all comes down to what Mother Nature gives us, he said. Norris added that a letter expressing the agreement between NMFS, the State of Idaho and the Bureau of Reclamation is being prepared; he said he will provide copies of the letter to TMT as soon as it is available.

4. Emergency Action List Update.

Chris Ross said he had taken a shot at another draft of the prioritized emergency action list. Bettin explained that he had submitted Ross' July 12 list to the BPA schedulers, with the understanding that it will not be possible to implement some of the items on the list within the stipulated two-hour period. The list was subsequently re-worked by Bettin; he said a meeting has been scheduled to further refine the list at 2 p.m. Tuesday, July 30 at BPA headquarters.

Bettin noted that coordination is the main problem with many of the items on the current list; many of them would be difficult or impossible to implement in the time frame currently indicated. In general, he said, the two-hour list probably works, but the list of actions to be taken for outages longer than two hours will require substantially more coordination. We'll discuss those issues at next Tuesday's meeting, and will also provide some information about the process our schedulers go through.

Ross noted that there are two items on the July 12 list (which the BPA schedulers are currently using) – zero nighttime flow at the Lower Snake projects and pulling the fish screens at McNary – that NMFS does not concur with. Bettin added that Item 11 on the “Actions to be taken for outages of two hours or less” list should be modified to indicate a priority on Powerhouse 2 operation, rather than no first powerhouse operation. After a few minutes of discussion, Bettin agreed to provide the version of the emergency priorities list dated July 23 to Bonneville’s schedulers.

5. 2003 Water Management Plan Content.

Scott Boyd said this item is on the agenda because this is the last chance for the TMT to offer any changes or additions to the 2003 Water Management Plan content. No additions were offered at today’s meeting; Silverberg noted that the revised 2003 WMP will be provided at the August 21 TMT meeting.

6. Lower Granite Forebay Tri-Level Temperature Collection Update.

Rudd Turner said a question was asked two weeks ago about the status of tri-level thermograph data this summer. The Corps has two contractors collecting temperature with depth information in the Lower Granite forebay, Turner said -- Joe Carroll, who is collecting detailed temperature profile data to inform RPA action #143, the 3-D water temperature modeling effort in the Lower Snake River, and Dave Bennett’s work for AFEP in support of the Lower Snake River adult migration studies. In both cases, those are research applications, so the data are not readily available in real-time, Turner said – it will be approximately 4 weeks between the time data is collected and the time it would be available for use. Neither contract calls for downloading that data in real time this year, Turner said. Next year, however, the Corps is considering a satellite link downloaded to a host computer. Again, this is primarily a research application but it may also give us something closer to real-time data, he added.

What, specifically, is the utility of this information, from a river management and operations perspective? Turner asked. Its utility probably isn’t that important now, Wagner replied; you will recall that every year we have a debate about when to start the cold water releases from Dworshak, but that decision has already been made for this year. What about the evaluation of fish behavior in response to the September releases from Dworshak? Boyce asked – it could be useful from that perspective, at least in a “lessons learned” context. As long as the information is made available at a later date, that would be satisfactory for this year, although it would be useful if we could get the information on at least a weekly basis next year, Wagner said.

The group devoted a few minutes of discussion to the management utility of the Lower Snake temperature data. Laura Hamilton noted that the Corps is in the process of developing an on-line database which will display the Lower Snake temperature data from 2002 and past years; our ultimate goal, she said, is to link that temperature data with TDG and fish movement information.

7. Dworshak, Hungry Horse and Libby Operations.

Norris said that, last week, Hungry Horse went down to 4 Kcfs outflow; the way we left it was that the salmon managers would decide when they wanted to ramp Hungry Horse up to 6 Kcfs, and how long they wanted it for, he said. Norris said he had discussed this issue with Montana's Brian Marotz on Friday, who told him that conditions in the main fork of the Flathead are optimal for cutthroat at 6 Kcfs. This is a year when Montana would prefer not to see minimum flow (3.5 Kcfs), followed by a significant increase in flow due to power operations and increasing natural flows -- the so-called "double peak," Norris said. The bottom line is that it would be preferable to hold 6 Kcfs for two weeks, rather than three weeks, he said -- that will allow us to continue to maintain more than minimum flow from Hungry Horse until closer to the end of September. I guess what I'm saying is that this is a year when you can bleed some of the water that would normally be released in August into September, because that 2 Kcfs won't mean much to flows in the lower river, but has a significant impact on conditions in the Flathead immediately below Hungry Horse, Norris said.

Boyce said his preference would be to ramp Hungry Horse flow up to 6 Kcfs as soon as possible; there will still be a significant volume above elevation 3540 for release in September, he said. We can go to 6 Kcfs now, Norris said; the question is, how long should we maintain 6 Kcfs outflow from Hungry Horse? Kanbergs noted that the current SSARR run shows 11 days of 6 Kcfs release from Hungry Horse beginning in mid-August; under this modeling run, Hungry Horse's August 31 elevation would be 3549 feet, and Hungry Horse would then release 4 Kcfs throughout the month of September. After a few minutes of discussion, it was agreed to increase Hungry Horse outflow to 6 Kcfs on Monday morning, August 5. Norris said he will produce some additional projections of Hungry Horse inflows, outflows and elevations under several potential flow scenarios. It was further agreed that a TMT conference call will take place Wednesday morning, July 31, if needed to discuss the Hungry Horse operation.

With respect to current Libby operations, Kanbergs said the goal was to reach full pool, 2459 feet, by July 31, followed by a steady draft at full powerhouse capacity to 2439 feet by August 31. Late last week, we realized that inflows were falling faster than anticipated, he said; the decision was made, in consultation with the other action agencies, NMFS and the State of Montana, to go to a flat outflow of 22.8 Kcfs through the end of August to avoid a double peak, and to achieve elevation 2439 at Libby by August 31. The only operational alternative we can see is to bump Libby outflow up to full powerhouse capacity -- 25 Kcfs -- now, then ramp flow down to some steady outflow in August, Bettin said. After a brief discussion, it was agreed to maintain the current 22.8 Kcfs outflow at Libby through August 31. We'll revisit this operation over the next few weeks on an as-needed basis, Bettin said.

With respect to Dworshak operations, said Kanbergs, the goal is to maintain a flat outflow of 13.8 Kcfs through the end of August; that should leave us a volume of approximately 117 KAF for release in September to reach elevation 1520' by September 30. However, there is a glitch -- a planned maintenance outage, currently scheduled for the first week in September, which would limit us to a single unit -- 2.5 Kcfs -- plus whatever spill we can get from the R/O system, Kanbergs said. We could probably delay the start of at least part of the operation for about a week, he said. In response to a question, Kanbergs said the maintenance operation is currently scheduled to run from September 3-October 25.

CRITFC and the Nez Perce Tribe would prefer to see you delay the start of the repairs until after the second week of September, said Martin; after that, the biological benefits associated with that release will decrease significantly. It was so agreed; in the interim, said Kanbergs, we will continue to release 13.8 Kcfs from Dworshak. In response to a question, Kanbergs said the Corps will produce an updated version of the “TMT volume diagrams” for Dworshak, showing the remaining flow augmentation volume through August, in time for discussion at the next TMT meeting.

8. Current System Conditions.

Kanbergs said Grand Coulee has begun drafting slightly to reach its end-of-August elevation target. Ross wondered about that operation, given the fact that the current flow at McNary is still nearly 220 Kcfs, and it might be better to hold the Grand Coulee storage for use later in August. Kanbergs said Grand Coulee has drafted 8/10 of a foot over the past five days, which is within the two-foot operating range.

With respect to the status of the fish migration, Wagner reported that subyearling passage continues to be strong, although we’re definitely in the second half of the migration – 59,000 fish on July 21 at Lower Granite, the daily peak for the season. Current indices at Lower Granite are down in the 10,000-fish range, and should taper down further as we head into August. The trend is similar at McNary, with the peak having passed and daily indices headed downward, Wagner said. According to the DART forecast, we’re at the 79% passage point for the season at Lower Granite, as of July 22; at McNary, we’re at 52%. Typically, the 95% passage point for subyearling chinook at McNary occurs around August 31, said Boyce.

Moving on to adult passage, Wagner said the summer chinook run totals 121,000 to date, a “whopping big” number. The forecast for the season is 140,000 fish. Passage is down to about 1,000 fish per day, but the seasonal total will include the fish caught below Bonneville as well as those passing the dam. With respect to cumulative subyearling passage indices at Lower Granite Dam, we’re not meeting our expectations, he said; that could be due to the more extensive spill program in effect this year. A similar pattern holds true at McNary, Wagner said – cumulative passage is well below the pre-season forecast.

Moving on to current reservoir operations, Kanbergs said 1287.6 feet is the current elevation at Grand Coulee; the project will continue to draft to reach elevation 1280 on August 31. The SSARR shows an average outflow of 195 Kcfs at McNary during the week ending August 4, he added; yesterday’s day-average flow was 209 Kcfs. The summer seasonal average is expected to be 204 Kcfs, Bettin added, but McNary flows will be much lower in August than they are, currently -- 157 Kcfs as a weekly average for the week ending August 25. Is the sort of gradual rampdown shown in the SSARR run the way the salmon managers would prefer to see the system operated? CRITFC would prefer a gradual recession, Martin replied. Wagner also said this would be an acceptable operation; no objections were raised by the other salmon managers.

Moving on, Kanbergs reported that Libby elevation was 2457.8 Kcfs at Libby as of

midnight last night, with outflows of 22.8 Kcfs and inflows of about 14 Kcfs yesterday, down from 20.6 Kcfs five days ago. The current Dworshak elevation is 1587 feet, with 13.9 Kcfs out and 4 Kcfs in – we’ve drafted about four feet over the past week at that project, he said. At McNary, again, the current flow is 209.8 Kcfs; the summer seasonal flow objective is 200 Kcfs. It does look as though we will achieve an average flow of 204 Kcfs for the summer season at McNary, he added.

Average flow yesterday at Lower Granite was 31.4 Kcfs, compared to a summer seasonal target of 51 Kcfs. It looks as though we’ll average about 35 Kcfs at Lower Granite over the next two weeks, he said. The actual summer seasonal average flow at Lower Granite is expected to be about 46 Kcfs, Kanbergs added. Wagner noted that current water temperatures in the Lower Granite forebay are in the 74 degree F range; in McNary forebay, 67-69 degrees F. The current release temperature at Dworshak is 47 degrees. In response to a question, Kanbergs said he will check with the Nez Perce Tribe and the Fish and Wildlife Service to see whether a lower release temperature would be possible at Dworshak.

What about power supply? Silverberg asked. Life is good, Bettin replied, although the Central Oregon fires are an ongoing threat – we have had some outages due to smoke fouling the insulators. There have been no serious outages so far, he said; we’ll keep our fingers crossed.

Moving on to water quality, Laura Hamilton said that, on the TDG front, McNary has been the main place where exceedances have occurred over the past week, primarily due to water temperatures in the Mid- and Lower Columbia. Water temperatures in the Lower Granite forebay have been the highest in the system, in the 73-76 degree range. Hamilton noted that maintaining a consistent spill volume at Bonneville continues to be a challenge, due to temperature and wind effects, as well as incoming gas levels. In response to a question from Boyce, Hamilton said it should be possible to provide daily average spill volumes at the various projects at the next TMT meeting.

9. New System Operational Requests.

No new SORs were submitted prior to today’s meeting.

10. Recommended Operations.

Recommended operations were summarized during a previous agenda item.

11. Other.

A. Shutdown of the Bonneville 1 Smolt Monitoring Facility. Boyce requested that this shutdown occur as soon as possible; Turner agreed to check on facility status.

12. Next TMT Meeting Date.

The next face-to-face meeting of the Technical Management Team was set for Wednesday, August 7. A tentative conference call was scheduled (if needed) for July 31.

Meeting summary prepared by Jeff Kuechle, BPA contractor.

TMT ATTENDANCE LIST

JULY 24, 2002

Name	Affiliation
Karl Kanbergs	COE
Scott Bettin	BPA
Tony Norris	USBR
Paul Wagner	NMFS
David Wills	USFWS
Ron Boyce	ODFW
Donna Silverberg	Facilitation Team
Tina Lundell	COE
Rudd Turner	COE
Laura Hamilton	COE
Chris Ross	NMFS
Tom Le	PSE
Kyle Martin	CRITFC
David Benner	FPC
Russ George	WMCI
Robin Harkless	Facilitation Team
Richelle Harding	D. Rohr & Associates
Scott Boyd	COE
Colin Beam	PPM
Steven Wallace	PacifiCorp
Laurie Ebner	COE
Margaret Filardo	FPC
Glen Traeger	Avista Energy
Mike Buchko	PowerX
Lance Elias	PPL